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Title: 2011 Radioactive Waste Management Basis for Weapons Facilities Operations (WFO) Dual Axis Radiographic Hydrodynamic Test (DARHT) Facility

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Intended for: DOE
DOE
Waste management
Reading Room
DOE



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Waste and Environmental Services Division

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Date: September 8, 2011
Refer To: WES-DO-11-014

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2011 Radioactive Waste Management Basis for Weapons Facilities Operations (WFO) Dual Axis Radiographic Hydrodynamic Test (DARHT) Facility

The Waste Certification Program (WCP) has reviewed the WFO-DARHT Radioactive Waste Management Basis (RWMB) submittal for TA-15. The facility has requested RWMB approval for a two-year timeframe. WCP concurs with the waste generation and operation information provided. Operations planned during the period are routine; however, if non-routine operations are identified during the two-year period, a revision will be submitted. The referenced safety and facility documents can be obtained through the Waste Certification Program office. We are able to arrange a site visit to review facility information, if requested.

Sincerely,

Alison M. Dorries
Division Leader
Waste and Environmental Services
AMD:mlc

Enc: Radioactive Waste Management Basis WFO-DARHT 2011-07, Rev 0

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☐ Extension Requested (Detailed letter must be attached.)

Reporting Organization WFO-DARHT		Report Date July 25, 2011		Facility Hazard: <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low	
Purpose The purpose of this report form is to document the radioactive activities at Technical Area(s) <u>15</u> , which are operated by the <u>WX</u> organization at Los Alamos National Laboratory (LANL or the Laboratory). This Radioactive Waste Management Basis (RWMB) Report Form constitutes compliance with the applicable requirements of Department of Energy (DOE) Order 435.1, <i>Radioactive Waste Management</i> , and in DOE Manual 435.1, Chapter IV, <i>Low-Level Waste Requirements</i> , and Chapter III, <i>Transuranic Waste Requirements</i> . The organization must submit an RWMB Report Form to the Waste and Environmental Services-Waste Generator Services Group (WES-WGS), Waste Certification Program (WCP) by July 30 upon expiration or when a significant waste stream change has occurred. WCP must compile the LANL Organization RWMB Reports and submit this package for DOE reporting before August 30 in order to maintain approval.					
Time Requested for RWMB Approval <u>2</u> year(s) <u>WFO-DARHT</u> Report Authorization					
Facility Operations Director (FOD)/Division Leader: Racanna Sharp-Geiger Name		Signature <u>[Signature]</u>		Date <u>7/30/11</u>	
Report Preparer: John M. Tymkovich Name		Signature <u>[Signature]</u>		Date <u>7-27-11</u>	
Waste Certification Specialist: Kelkenny Bileon Name <u>MICHELLE CORIZ</u>		Signature <u>[Signature]</u>		Date <u>7-27-11</u> <u>9-8-11</u>	
Waste Certification Program (WCP) Annual Review					
Waste Certification Specialist: Name _____ Signature _____ Date _____					
Waste Authorization Basis List all facility/operations authorization basis documents and include specific facility waste management documents. <input type="checkbox"/> Nuclear-Facility <input type="checkbox"/> Non-Nuclear Facility <input type="checkbox"/> TSDF <input checked="" type="checkbox"/> Accelerator <input type="checkbox"/> An attached list is provided					
Safety or Facility Document Name		Document Number	Last Rev. Date	Document Owner	
<input type="checkbox"/> Waste Management Plan					
<input type="checkbox"/> Facility Waste Certification Plan (FWCP). <i>Do not complete pg. 3</i>					
<input type="checkbox"/> Operation Record					
<input checked="" type="checkbox"/> Documented Safety Analysis (DSA)		DARHT-DOC-8889R6	April 23, 2010	J. Tingey/S.Archuleta	
<input type="checkbox"/> Technical Safety Requirement (TSR)					
<input checked="" type="checkbox"/> Safety Evaluation Report (SER)		SBT: 4SC-001	June 12, 2008	Arthur Dye	
<input checked="" type="checkbox"/> Health & Safety Plan/Job Hazard Analysis		IWD's (activity specific)	ongoing	various	
<input type="checkbox"/> Site Treatment Plan					
<input type="checkbox"/> DOE O 435.1 Exemption for Disposal at a Non-DOE Facility					
<input type="checkbox"/> Closure Plan					
<input type="checkbox"/> Monitoring					
<input type="checkbox"/>					
<input type="checkbox"/>					
Institutional Document	Document Number	Institutional Document	Document Number		
<input checked="" type="checkbox"/> Waste Management	P409	<input checked="" type="checkbox"/> LANL Waste Acceptance Criteria	P930-1		
<input checked="" type="checkbox"/> Radioactive Waste Certification Program	P930-2	<input checked="" type="checkbox"/> Off-Site Shipment of Chemical, Hazardous, or Radioactive Waste	P930-3		
<input type="checkbox"/> NMED LANL Hazardous Waste Facility Permit	NM0890010515-1	<input checked="" type="checkbox"/> LANL Packaging and Transportation Program Procedure	P151-1		
<input checked="" type="checkbox"/> Environmental Management System	SD400	<input checked="" type="checkbox"/> National Environmental Policy Act (NEPA)	42 U.S.C. 4321		



Waste and Activity by Building and Destination

For any building/location managing radiological materials, enter the TA-Bldg No. (e.g., 55-0078 or 55-outside) then click on waste activity and destination box and select the appropriate descriptors for the management activity type (see key below) and waste destination. Identify total organization estimated annual volume above destination box.

[illegible]

Activity: Recyc = Recycling. Stage = Staging. Store = Storage. SS = Stage & Store. Treat = Waste Treatment. SR = Stage & Repack. All = All Activities.



Radioactive Waste Management Basis Report Form (Page 3)

DOE O/M 435.1 Facility/Organization Specific Summaries	WFO 2011-July, Rev. 0
Facility Scope Provide a brief description of organization activities and operations including waste generation, management, tracking, reporting, and preliminary disposal characterization.	
Response: The Dual Axis Radiographic Hydrodynamic Test (DARHT) Facility is a dual axis electron accelerator facility which produces x-ray beams that intersect at a firing point to produce radiographs of exploding or imploding material. Waste generated consists of depleted uranium and beryllium shot debris contained in media. Open detonations are no longer performed at the DARHT. Any low level radioactive wastes generated are managed in a registered staging area tracked by facility Waste Management Coordinators (WMC's) and LANL's waste management system.	
Life-Cycle Waste Management Describe the waste management process at the organization, security of waste funding, and the cradle to grave management. Specify how applicable procedures address waste management and controls. Utilize Environmental Management System (EMS) support.	
Response: The DARHT facility projects are reviewed by WFO waste management and environmental staff prior to implementation to determine waste generating activities. Based upon this review, funding for management and disposal of the waste is built into the project cost. Project wastes are tracked by facility and waste management from generation until final disposition at an authorized facility. Institutional procedures and controls identified on page one are followed.	
Characterization Provide a description of how the organization implements the radioactive waste characterization process at the organization and the document support. Detail the routine method of waste characterization for the organization.	
Response: Waste characterization is achieved through a combination of process knowledge and analyses of waste streams. This is done through institutional procedures and requirements. The routine characterization process consists of an authorized generator of waste and waste management personnel reviewing the waste generation process to ensure a path forward for the waste. If there is a path forward and the review determines that sampling and analysis is required for characterization, a request for sampling and analysis is submitted. Samples are collected and analyzed and based on analytical results and/or process knowledge a waste profile form is prepared and submitted for approval. Upon approval, wastes are dispositioned in a timely manner for disposal. Documents supporting the characterization and disposal path consist of process knowledge documentation or analytical data, approved profiles, disposal requests, transportation and disposal documents.	
Packaging and Transportation Specify organization-specific procedures for packaging operations and preparations for transportation. Laboratory personnel are required to meet the requirements of P151-1, LANL Packaging and Transportation Program Procedure, to ensure compliance with Department of Transportation (DOT) requirements. Identify the controls that will be implemented to prevent contents from being added to waste containers or tampered with while in a registered waste area.	
Response: WFO waste management coordinators are trained to HMPT requirements and ensure wastes are packaged in accordance with these requirements. LANL Waste Services which transports all wastes ensures that all DOT requirements are met and will not accept a waste for transport if not in compliance. The DARHT facility is located in a secured area where only authorized workers have access to waste staging/storage areas.	
Staging/Storage Describe the accumulation and holding of radioactive waste that is treated, or transported to or from the organization. Describe the organization's generation process and management trail into a registered waste area.	
Response: Radioactive waste is managed within a registered accumulation area prior to disposition at an authorized facility. No radioactive wastes are treated or transported in to the DARHT facility. WFO WMC's maintain the document trail for the registration and decommissioning of waste areas.	
Quality Assurance Program Describe the organization-specific procedures that ensure the traceability of waste characterization records, container procurement, and the document control process.	
Response: on page 4 of 4 uncom 8/24/11	

Institutional requirements delineated on page one of this form ensure that waste characterization documentation is retained by LANL waste services and the WMC's. Container procurement is accomplished through standard institutional procurement procedures on a project by project basis.

Training and Qualification

All waste management personnel (Waste Management Coordinators [WMCs]; Environment, Safety, Health, and Quality [ESH&Q]; Environmental Tech; etc.) are required to maintain qualification standards. Describe how the organization implements any other radioactive waste management specific training required by the organization.

Response:

There is no DARHT site specific training for radioactive waste management required beyond the institutional waste and rad worker training, however all waste management personnel are required to remain current with their training plans in order to perform work and manage radioactive waste. *Waste Mgmt 8/24/11*

Waste Minimization and Pollution Prevention

Document the implementation of waste minimization and pollution prevention programs for radioactive waste management facilities, operations, and activities. Provide assurance of waste stream evaluation before generation of waste.

Response:

Prior to waste generation at DARHT, the proposed waste streams are evaluated by WFO WMC's and Environmental staff to determine the best waste minimization and pollution prevention approaches in accordance with institutional policies, waste profile form guidance and P930-2 Waste Certification Program.